



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,887	04/16/2004	Manatesh Chakraborty	133737-1	1420

23413 7590 01/09/2009  
CANTOR COLBURN, LLP  
20 Church Street  
22nd Floor  
Hartford, CT 06103

EXAMINER
----------

WOLLSCHLAGER, JEFFREY MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

1791

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/09/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,887	<b>Applicant(s)</b> CHAKRABORTY ET AL.	
	<b>Examiner</b> JEFFREY WOLLSCHLAGER	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 9,11,21,23 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8,10,12-20,22,24-26 and 28-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/5/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1791

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment to the claims filed October 10, 2008 has been entered. Claims 1, 5, 28 and 32 are currently amended. Claims 9, 11, 21, 23, and 27 remain withdrawn from further consideration. Claims 1-8, 10, 12-20, 22, 24-26 and 28-32 are under examination.

### ***Information Disclosure Statement***

The information disclosure statement filed November 5, 2008 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

The information disclosure statement filed November 5, 2008 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Art Unit: 1791

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1-4, 8, 10, 12-20, 22, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP 2000-167827) in view of Oliver et al. (US 5,767,426) and Koslow (US 5,147,722) and further in view of Gijzen (US 6,359,043).

Regarding claim 1, Yamamoto et al. teach a method of producing polyphenylene ether (PPE) tablets comprising heating polyphenylene ether powder during manufacture between 70 °C and 200 °C (Abstract; paragraph [0019]) and compression molding the powder at a pressure of 0.1 to 5.0 tons/cm<sup>2</sup> (paragraphs [0016 and 0019]). The temperatures employed by Yamamoto et al. are less than the glass transition temperature of PPE, which is above 200 °C, and the density of the final product is higher than the density of the starting powder (paragraph [0023]). Yamamoto et al. exemplify feeding preheated powder into a preheated mold (paragraph [0023]). While Yamamoto et al. do suggest that the elevated temperature is only required “during manufacture” (paragraph [0019]), Yamamoto et al. do not expressly teach

Art Unit: 1791

feeding the powder to the mold in an unheated state and then heating it to the required temperature for compression molding.

However, Oliver et al. teach that in compression molding powder based compositions which include a thermoplastic resin the composition can be preheated or the mold/die can be preheated or any combination of heating can be effectively employed (col. 7, lines 61-64) and Koslow teach that in compression molding powder based compositions which include a thermoplastic resin the exact procedure can be determined based on the size and shape of the product and can include pouring the powder into a heated mold and heating the mold again after the powder has been added (col. 18, line 58-col. 19, line 6).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamamoto et al. and to have fed the powder to the mold in an unheated state, followed by heating the powder after it was introduced into the mold, as suggested by Oliver and Koslow, since Oliver and Koslow both suggest that such heating variations are art recognized equivalent and alternative means of heating powder that is to be compression molded. Further, Koslow suggests the required heating would have been readily determined based upon the size and shape of the desired product. Further still, the examiner submits that it has been held that the sequence of performing process steps is *prima facie* obvious absent a showing of new or unexpected results (MPEP 2144.04 IV C).

Additionally, while Yamamoto et al. teach a wide range of PPE may be employed, thus suggesting the recited intrinsic viscosity (paragraph [0015]), Yamamoto et al. do not specifically recite the claimed intrinsic viscosity. However, Gijzen teaches a method comprising PPE within the claimed range and that the intrinsic viscosity of PPE is chosen depending on the properties required in the product (col. 2, lines 51-59).

Art Unit: 1791

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamamoto et al. and to have employed a PPE having within the claimed intrinsic viscosity range, as suggested by Gijzen, since Gijzen teaches that such PPE's are conventional in the art and that the intrinsic viscosity of PPE to be employed is chosen as a function of the desired physical properties of the product (i.e. intrinsic viscosity is a result effective variable).

As to claim 2, Yamamoto et al. teach a pressure 0.1 to 5 tons/cm<sup>2</sup>; a temperature of 70 °C to 200 °C; and exemplify a compressing time of 10 seconds (paragraphs [0016; 0019; 0023]).

As to claim 3, Yamamoto et al. produce articles having a compressive strength of 8.65, 16.5, 24.7, 30.9 and 104.7 kilograms (paragraphs [0023; 0024; 0027]).

As to claim 4, Yamamoto et al. teach the compressed material has a density from 0.7 to 1.5 g/cc (Abstract; paragraph [0023]).

As to claims 8, 10 and 12-14, Gijzen teach that adding various additives and binders such as polystyrene resin enhance the properties of PPE (col. 1, lines 35-40; col. 3, lines 25-30).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamamoto et al. and to have employed additives and binders, as suggested by Gijzen, for the purpose of enhancing the properties of the product.

As to claim 15, Yamamoto et al. disclose an unheated mold upon introduction of the powder in the comparative examples (paragraph [0026]). Further, as set forth above in claim 1, Koslow and Oliver teach that preheating or not preheating the powder and/or mold/die can be readily selected as equivalent alternative methods.

Art Unit: 1791

As to claims 16-20, Koslow teach that in compression molding powder based compositions which include a thermoplastic resin the exact procedure can be determined based on the size and shape of the product and can include pouring the powder into a heated mold, heating the mold again after the powder has been added. Additionally, Koslow teach that during heating no pressure is applied and no effort is made to consolidate the powder during the heating, that the powder must be at the desired temperature before the pressure is applied, and that the pressure must be applied rapidly thereby, suggesting the external supply of heat is stopped during the application of pressure (col. 18, line 58-col. 19, line 6). Further, Oliver et al. teach that in compression molding powder based compositions which include a thermoplastic resin the composition can be preheated or the mold/die can be preheated or any combination of heating can be effectively employed (col. 7, lines 61-64). The motivation to employ the teaching of Oliver et al. and Koslow in the method of Yamamoto et al. is the same as that set forth above in the rejection of claim 1.

As to claim 22, the compressed powder in tabular form set forth by Yamamoto et al. is understood to be a single phase compact (paragraphs [0023]).

As to claim 24, the PPE powder disclosed by Yamamoto et al. has 60% of the particles with a size of less than 100 micrometers.

As to claim 26, Yamamoto et al. employ a confined pressure device (e.g. a mold with a piston and hydraulic compression that allows for an increase in pressure in the mold) (paragraph [0023]).

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP 2000-167827) in view of Oliver et al. (US 5,767,426) and Koslow (US 5,147,722) and further in view of Gijzen (US 6,359,043), as applied to claims 1-4, 15-20, 22, 24

Art Unit: 1791

and 26 above, and further in view of Modern Plastics Handbook, edited by Charles A. Harper, Knovel release date: November 20, 2002.

As to claim 5, the combination teaches the method set forth above. Additionally, Yamamoto et al. teach the temperature ranges from 70 °C up to 200 °C which is immediately below the transition temperature and would thereby soften the PPE as set forth in the claim. Yamamoto et al. also teach the pressure ranges from 0.1 to 5.0 tons/cm<sup>2</sup>. Yamamoto et al. also disclose a range of suitable densities from 0.7 to 1.5 g/cc and a range of sizes of materials to be molded (paragraph [0017 and [0020]). Yamamoto et al. do not expressly teach applying the pressure for 300 to 2000 seconds. However, Modern Plastics Handbook discloses that the overall cycle times required for compression molding is determined based upon the molding material, the thickness/size of the part to be produced and the mold temperature (6.2.3, last full paragraph).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have combined the teaching of Yamamoto et al. and Modern Plastics Handbook and to have optimized the required compression cycle time, including to times set forth in the claim, in order to achieve a compression molded product having the required density and size.

As to claim 6, Yamamoto et al. employ the same claimed starting material and disclose densities as high as 1.5 g/cc. Further, the combination set forth above suggests the same claimed process steps performed in the same claimed manner. Accordingly, the same claimed effects and physical properties (e.g. compressive strength) would intrinsically be achieved by the practice of the combined method.

Art Unit: 1791

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP 2000-167827) in view of Oliver et al. (US 5,767,426) and Koslow (US 5,147,722) and further in view of Gijzen (US 6,359,043) and Modern Plastics Handbook, edited by Charles A. Harper, Knovel release date: November 20, 2002, as applied to claims 5 and 6 above, and further in view of Weiss et al. (US 5,294,667).

As to claim 7, the combination teaches the method set forth above. Yamamoto et al. do not expressly state the material is processed to remove or reduce gas trapped between the particles. However, Weiss et al. teach that compaction/compression molding of polyphenylene ether removes the air contained in the interstices of the loose powder which in turn reduces the proportion of fines and the risk of dust explosions (col. 2, lines 55-67).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have combined the teaching of Yamamoto et al. and Weiss et al. and to have removed entrained air from the interstices of the loose powder in the method of Yamamoto et al. since Weiss et al. teach that compaction/compression molding intrinsically performs this function and the result is a product that has reduced fines and reduced risk of dust explosions.

Claim 1-4, 8, 10, 12-20, 22, 24-26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827) and Gijzen (US 6,359,043). *Note: citations from Yamamoto et al. JP 2000-302877 are provided from the English translation provided with this office action.*

Regarding claims 1 and 32, Yamamoto et al. '877 teach a method for manufacturing PPE powder with improved particle size distribution comprising introducing powder that is unheated into a compression mold and compression molding the powder at a sufficient pressure

Art Unit: 1791

to raise the density and at a temperature of 5 – 200 °C. (claim 1; paragraphs [0007, 0008, 0017, 0019, 0022, 0026, 0027]). While Yamatomo et al. '877 teach the compression provides sufficient strength, Yamatomo et al. do not teach what the strength is of the material. Further, while Yamatomo et al. teach a wide range of molecular weights may be employed they do not expressly recite the claimed intrinsic viscosity.

However, Yamatomo et al. '827 disclose the compressive strength of materials compressed at different temperatures within the disclosed range of Yamatomo et al. '877, showing that these values are within the claimed strength range (Comparative example 2; Examples 1-4). Further, Gijzen teaches a method comprising PPE within the claimed range and that the intrinsic viscosity of PPE is chosen depending on the properties required in the product (col. 2, lines 51-59).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. '877 and to have employed a PPE having within the claimed intrinsic viscosity range, as suggested by Gijzen, since Gijzen teaches that such PPE's are conventional in the art and that the intrinsic viscosity of PPE to be employed is chosen as a function of the desired physical properties of the product (i.e. intrinsic viscosity is a result effective variable). Further, as evidenced by Yamatomo et al. '827 the compressive strength of the material produced by Yamatomo et al. '877 is within the claimed range.

As to claim 2, Yamamoto et al. disclose 1 and 3 tons/cm<sup>2</sup>; a temperature of 25 °C and a compressing time of 10 seconds (paragraphs [0023; 0026; 0027]).

As to claim 3, Yamamoto et al. produce an article having a compressive strength of 8.65 kilograms (paragraph [0027]).

Art Unit: 1791

As to claim 4, the density achieved by the compression in comparative examples 1 and 2 of Yamamoto et al. is 0.879 g/cc and 0.894 g/cc, respectively, (paragraph [0025] for units; and paragraphs [0026 and 0027]).

As to claims 8, 10 and 12-14, Gijzen teach that adding various additives and binders such as polystyrene resin enhance the properties of PPE (col. 1, lines 35-40; col. 3, lines 25-30).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamamoto et al. and to have employed additives and binders, as suggested by Gijzen, for the purpose of enhancing the properties of the product.

As to claims 15-20, Yamamoto et al. '827 disclose an unheated mold upon introduction of the powder (paragraph [0026]). Further, Yamamoto et al. '877 teach a range from 5-200 °C is suitable and preferably employ a heated mold during the compression molding (paragraph [0022]). The examiner notes that the sequence of performing the steps is *prima facie* obvious absent a showing of new or unexpected results.

As to claim 22, the compressed powder in tabular form set forth by Yamamoto et al. is understood to be a single phase compact (paragraphs [0026 and 0027]).

As to claim 24, the PPE powder disclosed by Yamamoto et al. has 60% of the particles with a size of less than 100 micrometers.

As to claim 25, Yamamoto et al. '877 disclose the particle size distribution of the particles, thereby suggesting an average within the claimed range (paragraph [0026]).

As to claim 26, Yamamoto et al. employ a confined pressure device (e.g. a mold with a piston and hydraulic compression that allows for an increase in pressure in the mold) (paragraph [0023]).

Art Unit: 1791

Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox (US 3,356,761).

Regarding claim 28, Fox teaches a method for forming melt processable polyphenylene ether (PPE) wherein polyphenylene ether powder and a liquid polymerizable material, such as styrene, (Example 1) are mixed together and compacted between two sheets of material (col. 4, lines 1-30) or cold-pressed (col. 5, lines 45-55) or press-cured at a temperature below the glass transition temperature of polyphenylene ether (col. 5, lines 35-43). The examiner submits all of these are reasonably understood to be compaction equipment comprising a compression mold as set forth in the instant disclosure. The liquid polymerizable material is a binder for the polyphenylene powder. Further, the examiner notes that the glass transition temperature of PPE is greater than 200 °C. Additionally, intrinsic to the compression operation is an increase in density of the article produced relative to the starting powder. The examiner notes that Fox does not specifically recite the compressive strength of the compression molded material, but Fox does provide information on the modulus and tensile strength of films and fibers produced by the method and these values suggest strength properties substantially above the recited value of 5 kg. Further, Fox teaches compressing the material as required to achieve the required thickness (Example 4).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Fox, and to have employed a pressure sufficient to achieve the recited compressive strength of 5 kg for the purpose of producing a film or fiber having the required strength properties and desired thickness.

As to claim 30, Fox teaches the liquid binder can be heated/devolatilized prior to the mixture being press cured (col. 5, lines 35-42) and also teach the mixture may be dissolved in a

Art Unit: 1791

common solvent and evaporated (col. 3, lines 21-24) to form the material that will ultimately be processed.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fox (US 3,356,761), as applied to claim 28 above and further in view of Nitzsche et al. (US 2002/0198123).

As to claim 29, Fox teaches the method set forth above. Fox does not teach the claimed heating sequence. However, Nitzsche et al. teach a method of forming a composition that includes fillers, wax binders, foaming agents and liquids that are heated and then pelletized to form a composition that is subsequently blended with a thermoplastic resin (paragraphs [0014-0017 and 0029-0031]).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Fox and to have heated the binder prior to blending with the thermoplastic resin, as suggested by Nitzsche et al., for the purpose of effectively incorporating additives into the composition of Fox.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fox (US 3,356,761), as applied to claims 28 and 30 above, and further in view of Yamamoto et al. (JP 2000-167827).

As to claim 31, Fox teach the method of claim 28 as set forth above. Fox does not teach that the powder comprises about 5 to about 70 percent of particles having a particle size less than 100 micrometers. However, Yamamoto et al. teach a compression molding process wherein 60 percent of the particles have a size of less than 100 micrometers (paragraph [0023]).

Art Unit: 1791

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have employed the PPE disclosed by Yamamoto et al. in the method of Fox since Yamamoto et al. teach such a PPE is suitable for analogous compression molding applications.

### ***Response to Arguments***

Applicant's arguments filed October 10, 2008 have been fully considered. Applicant's amendment to the claims has rendered the section 102 rejections based upon Umetsu et al. and Yamatomo et al. moot.

Applicant's arguments directed to the Fox reference have been fully considered, and to the extent they are still applicable, they are not persuasive. Applicant argues that Fox employs materials and additional steps that are excluded by the consisting essentially of language of the claim. This argument is not persuasive. As an initial matter, the examiner notes that the actual number steps in the method of claim 28 itself are not constrained by the consisting essentially of language, but correspond to the open comprising language set forth in the preamble of the claim. Further, the examiner notes that the styrene component directly corresponds to the claimed binder and the argued cross-linking material is set forth as being optional in Fox (col. 2, lines 29-31). As such, the examiner submits and maintains that Fox suggests claims 28 and 30 as set forth in the rejection above.

Applicant's arguments directed to the combination of Yamatomo et al. in view of Oliver and Koslow have been fully considered and to the extent they are still applicable in view of the amendment to the claims, they are not persuasive. Applicant argues that Oliver and Koslow are only combinable with Yamatomo et al. with improper hindsight reasoning. Applicant supports this argument by noting that different mixtures of material are compressed by Oliver and Koslow

Art Unit: 1791

than that which has been claimed. This argument is not persuasive. The examiner notes that Yamatomo et al. is the primary reference and the secondary references of Oliver and Koslow together support that the sequence of performing the heating step in a compression molding process is *prima facie* obvious. In other words, it is *prima facie* obvious to place unheated powder into the compression mold and then heating it in view of the combination of Oliver and Koslow with Yamatomo et al., the primary reference, who teach heating the powder prior to placing the powder into the mold. Further, this rationale is supported by MPEP 2144.04 IV C, which states that the sequence of performing process steps is *prima facie* obvious absent a showing of new or unexpected results.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1791

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. W./  
Examiner, Art Unit 1791

January 7, 2009

/Monica A Huson/  
Primary Examiner, Art Unit 1791